Albion-Sheridan Township Landfill Superfund Site
Calhoun County, Michigan

PROJECT UPDATE -- NOVEMBER 1996

Cleanup Plan

After presenting various alternatives to the public, in March 1995 the U.S. Environmental Protection Agency (U.S. EPA) chose a cleanup plan for the Albion-Sheridan Township Landfill site. Details of the cleanup plan can be found in U.S. EPA's Record of Decision, which is on file at the Albion Public Library. The plan requires excavation of approximately 200 drums of waste from an area in the east-central part of the landfill, which were discovered by the Michigan Department of Environmental Quality. Any drums which contain liquid or hazardous solid waste will be removed from the landfill, treated and disposed elsewhere. The landfill will be graded and some edges may be moved inward to consolidate the waste.. A 12-inch layer of sand will be placed over the waste to help with gas collection and to protect the next layer of the cap, which is a flexible membrane liner to stop infiltration of water into the waste. The liner will be covered with a protective layer of 18 inches of cover soil, a 6-inch layer of sand for drainage, and 6 inches of topsoil. Gasses generated by the landfill will be collected and released through vents for safe dispersal into the air (see study results described below showing the safety of this system).

The cleanup plan requires quarterly monitoring of some groundwater wells and annual monitoring in others. Water quality of residential wells close to the landfill and the Amberton Village wells will be tested quarterly. The plan also requires the placement of a restrictive deed or local ordinance which prohibits the installation of new groundwater wells close to the landfill. In addition, it requires monitoring of groundwater and gas emissions from the landfill. If the small area of arsenic contaminated groundwater does not decrease after five years, groundwater treatment will be required.

Cleanup Order

During the summer and fall of 1995, U.S. EPA attempted to reach agreement with the Potential Responsible Parties (PRPs). In October 1995, we issued a Unilateral Administrative Order requiring PRPs to design and construct the cleanup at this site. The Order was issued to Cooper Industries, Corning, Inc., Decker Manufacturing Corp., and the City of Albion. The first three PRPs indicated an intent to comply with the Order. The City of Albion indicated that it does not intend to comply with the Order, thereby subjecting the City to potential civil penalties. The complying PRPs have hired Woodward-Clyde Consultants of Livonia, Michigan, to design the cleanup and plan for construction.

A schedule for design and construction of the cleanup was approved by U.S. EPA. An excerpt follows:

	Deadline	Status
Remedial Design Work Plan	July 1996	completed
Pre-Design Studies	August 1996	completed
Preliminary Design	January 1997	
Final Design	April 1997	
Remedial Action (construction) Work Plan	June 1997	
Construction completion	March 1998	

Pre-Design Study Results

The PRPs conducted pre-design studies during the late summer to gather additional information that is needed for the design. This work included installing additional monitoring wells, collecting groundwater samples, identifying the boundaries of the waste, evaluating gas emissions from the landfill, and determining if native species can be used to revegetate the landfill cap. A brief discussion of the findings is provided below. The entire report will be available to the public in December 1996, after it is approved by U.S. EPA.

Monitoring Well Installation:

The installation of additional monitoring wells was necessary to further define the contaminant plume in groundwater to the south and west of the site. This information will also be used to design the long term groundwater monitoring program. Two monitoring wells were installed south of the landfill area in the right-of-way of Erie Road. Two additional proposed monitoring wells to the west of the landfill have not yet been installed because the PRPs have not come to agreement with property owners over site access.

Groundwater Sampling

Groundwater samples were collected from all existing wells (31 monitoring wells) and the two newly installed wells. In addition, water levels were measured in each well to confirm groundwater flow directions. Water quality and flow directions remain very similar to the results obtained by U.S. EPA three years ago, which are available in the Remedial Investigation Report on file at the Albion Public Library. Groundwater flows southwest beneath the site. A leachate plume is present in shallow groundwater for at least 900 feet horizontally southwest of the landfill and extends to a depth of approximately 45 feet. The plume carries a low level of several organic and inorganic contaminants. However, the only contaminant which exceeds Federal drinking water standards (Maximum Contaminant Levels or MCLs) in the bedrock groundwater is arsenic. Arsenic exceeds MCLs at only one well, located close to the landfill, but is present at lower levels in many other monitoring wells. Residential wells were not resampled during Pre-Design Studies, but residents may recall that no site-related contaminants were detected in any residential wells during previous sampling. After construction is complete, quarterly sampling of residential wells will resume.

Waste Boundary

Test pits were excavated around the landfill to determine the location and depth of the edges of the waste, to help in designing the landfill cap. A total of 26 trenches were excavated by backhoe, removing soil in small layers until waste was encountered. In several areas the waste material is outside of the current fenced boundary of the landfill.

Gas Emissions Study

All landfills emit gasses as the waste decomposes. A computer model was used to predict the amount of gas that will be generated from the Albion-Sheridan Township Landfill. The predicted amount of gas and quality of gas emitted from the landfill was then evaluated to determine if these emissions would result in a cancer risk to nearby residents. Based on the predicted quantity and quality of the gas emissions, it was determined that it does not present a cancer risk and applicable air standards will be met without treating gas emissions.

Native Species Revegetation Study

The purpose of this study was to determine if using native species to revegetate the landfill cap was practical and economical. It was found that using native species for revegetation has many benefits including improved soil quality, reduced soil erosion, enhancement of existing native plant communities, preservation of native plant gene pools, reduced use of herbicides, and reduced mowing. The initial cost of using native species for revegetation might be higher than using traditional turf grass; however, reductions in mowing and herbicide use can result in cost savings and environmental benefits over time. The use of native species for revegetation of the landfill cap will be incorporated into the design.

For more information about the current status of the Albion-Sheridan Township Landfill Superfund Site, please contact Leah Evison at U.S. EPA at (312) 886-4696 or toll-free at 1-800-621-8431.